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AMPELOMETRIC EVALUATION OF WILD GRAPE (*Vitis vinifera* L. ssp. *sylvestris* (C.C. GMEL.) HEGI) ACCESSIONS IN THE GERMPLASM COLLECTION OF FEM-IASMA, ITALY

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INTRODUCTION – The wild grape (*Vitis vinifera* subsp. *sylvestris* C.C. Gmel. Hegi) is an autochthonous, rare member of the flora in Eurasian riverbanks and mid-elevation mountains. Caused by the habitat loss and introgression, this species was drifting towards extinction. In this way it is highly important to preserve the remaining populations. Diversity of the wild grape in natural habitats and in germplasm collections is estimated based on molecular, chemotaxonomic and morphological data. Mature leaf and its morphological description (*ampelometry*), supply appropriate biometric information for the characterization of ecotypes and the comparison of genotypes within and between species.

AIMS AND SCOPES – In the present study, digital image analysis of leaf morphology in wild grape accessions from an Italian germplasm collection was carried out. The aims of this stud were to: (1) estimate ampelometric variability among the genotypes originating from different geographic regions, (2) compare leaf morphology of female, male and hermaphrodite individuals, and (3) evaluate a year-to-year effect on ampelometric traits.

MATERIALS AND METHODS – In this study, 47 wild grape accessions in the *ex situ* germplasm collection of the FEM-IASMA was compared for 36 ampelometric traits. Based on gender and geographic origin samples were grouped into 14 ecotypes. Sampling was carried out in July 2012 and 2013 according to the OIV recommendations. Ampelometric characterization of the samples was carried out with GRA.LE.D. raster graphic software. Statistical analysis was executed in IBM SPSS ver. 20. Morphological differences between genders and geographic origin were explored by ANOVA, while the between-year effect was evaluated by the t-test.

RESULTS AND DISCUSSIONS – Ampelometric description of 47 wild grape accessions was carried out in two years. Variability of the leaf characteristics was investigated. Our results show that there is a significant leaf morphological variability between the accessions with different gender and/or geographic origin. Our results also highlight that the year-to-year effect also influences ampelometric traits.

CONCLUSIONS AND POSSIBLE APPLICATIONS – Our results proved that morphological diversity of the wildgrape in germplasm collections could be investigated based on ampelometric characteristics. Results show that morphological characteristics are influenced by the year-to-year effect, and therefore this factor should be included in any future sample comparisons.